

COLLECTION HISTORY OF *PLATANThERA CHORISIANA* (ORCHIDACEAE)
IN WASHINGTON STATE

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ABSTRACT

Although *Platanthera chorisiana* (Orchidaceae) was reportedly collected in 1912 from Lake Serene (near Edmonds), Snohomish County, Washington State, no other information about this site or collection was known. Since this original collection, it has been collected three more times in the state. Because this State Threatened orchid has never been relocated at the Edmonds site, and because it does occur at Lake Serene, near Mount Index, Snohomish County, Washington State, I reviewed potentially relevant literature and archives starting with the collection year. I documented its collection at Lake Serene, near Mount Index. The 1912 specimen passed from Harry B. Hinman, the collector and a member of the Mountaineers, to Donovan Correll, in Texas. The orchid has persisted at Lake Serene, near Mount Index, for at least 90 yrs.

Key Words: Orchidaceae, *Platanthera chorisiana*, rare plant, Washington State.

Adelbert von Chamisso (1828) first described what is now *Platanthera chorisiana* (Cham.) Reichb. f. as *Habenaria chorisiana* from the type locality mountainous regions of Unalaska. The holotype is currently at LE (Christenson 1994); a photograph of this specimen, collected by Johann Freidrich Eschscholtz, is at NY. The species name, *chorisiana*, honors Louis Choris, a Russian painter (Correll 1950). Chamisso, Eschscholtz, and Choris served on the Russian Rurik expedition, which was searching for a Northeast Passage from Russia to Alaska through the Bering Strait (Kotzebue 1821).

Platanthera chorisiana ranges from Japan northward, through the Aleutian Islands of Alaska, east to Southeast Alaska, southward through the Queen Charlotte Islands, Vancouver Island, and into Washington State (Calder and Taylor 1968; Hultén 1968; Sheviak 2002.) Several agencies and organizations rank the species as rare (State Threatened—Washington Natural Heritage Program [1997, 2003]; Sensitive—USDA Forest Service [1999]; Vulnerable—NatureServe [2004]). It is not federally listed as threatened or endangered, nor is it proposed for such listing.

Platanthera chorisiana has been reported from several sites in Washington State (Washington Natural Heritage Program 2005). Hitchcock et al. (1969) reported that *P. chorisiana* was “collected only once from our area, in 1912, from Lake Serene (near Edmonds), Snohomish County, WA.” Albert E. Grable collected *P. chorisiana* from Snohomish County, Washington, in 1980 and 1986, on the Mount Baker-Snoqualmie

National Forest (Grable and Laferrière 1993). I collected this species at Lake Isabel (Mt. Baker-Snoqualmie National Forest, Skykomish RD: T28N R10E S31, NE of SW. UTM e606609, n5302843 (NAD 1927). 6 August 2002, Tracy L. Fuentes 430 (WS, WTU)). Most of the other sites have too few individuals for collection, given the rarity of this species.

Snohomish County has two lakes called Lake Serene, one near Edmonds and the other near Mount Index (Fig. 1). Because the Lake Serene near Edmonds is much farther west than the other sites of *P. chorisiana* (Fig. 1), because *P. chorisiana* has never been relocated near Edmonds, and because *P. chorisiana* does occur at the Mount Index Lake Serene (Washington Natural Heritage Program 2005), I investigated the source of the original citation in Hitchcock et al. (1969).

METHODS

I reviewed potentially relevant literature and archives dated 1912 or later to search for the Lake Serene collection. To generate farther leads, I entered the names of all paper authors and potential collectors into a search engine (<http://www.google.com>). To see if the specimen still existed and to document any other locality information, I contacted Pacific Northwest herbaria (ORE, OSC, WS, WSP, WTU, WWB) and then other herbaria in the United States that might possess the specimen (AMES, BRIT, GH, JEPS, LL, MO, NY, TEX, US).

RESULTS AND DISCUSSION

J. W. Thompson did not report *P. chorisiana* in his regional checklists of vascular plant species

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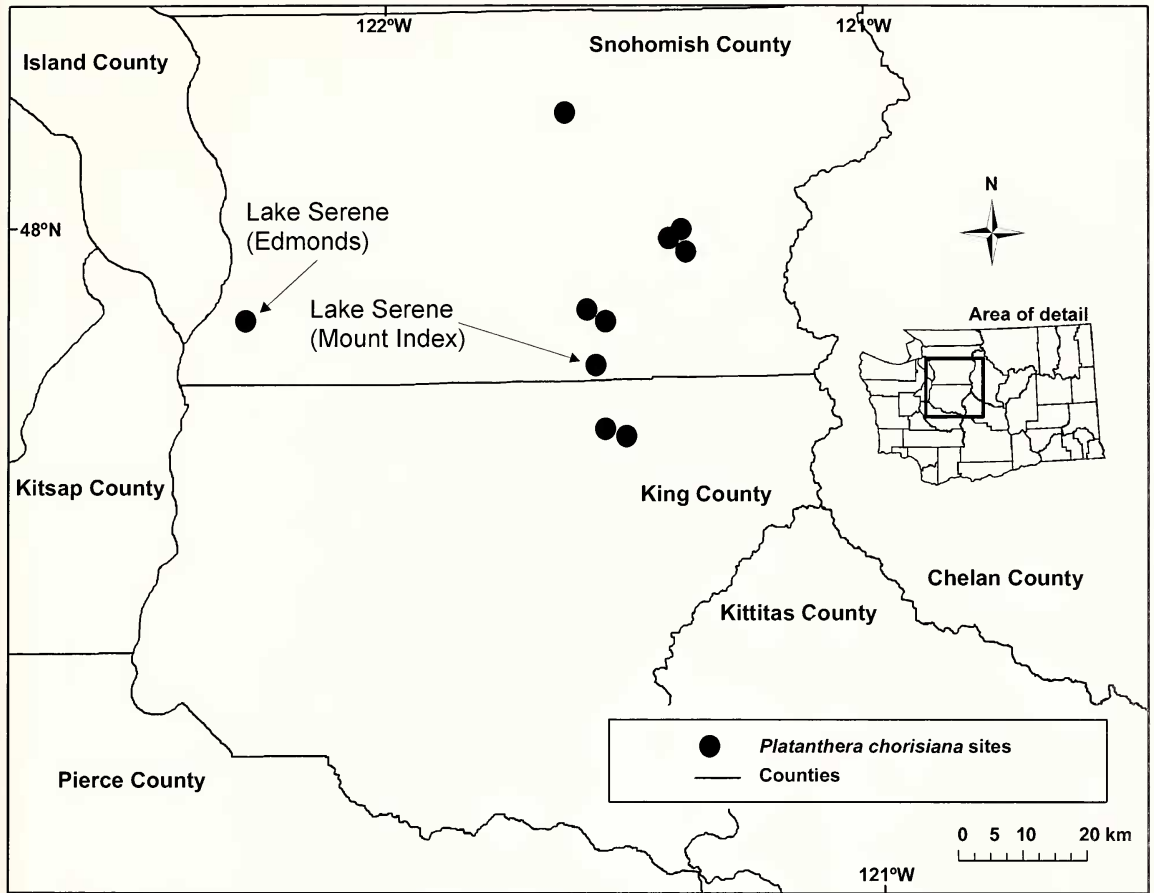


FIG. 1. Sites of *Platanthera chorisiana* in Washington State, as documented by the Washington Natural Heritage Program (2005). Two lakes in Snohomish County are named Lake Serene and reportedly had *P. chorisiana* sites. However, documentation of the westernmost site is based on Hitchcock et al. (1969) erroneously reporting that a 1912 specimen of *P. chorisiana* was collected at the Lake Serene, near Edmonds, rather than the Lake Serene near Mount Index.

(unpublished volumes, dated 1930, 1932, 1938, available at WTU).

Correll (1958) reported that he reviewed the newly acquired Oakes Ames general herbarium, consisting of about 8,000 specimens given to the Texas Research Foundation. He found a folder containing a specimen with the genus name "*Habenaria (Piperia)*" entered on the sheet. A note by Ames on the folder stated, "from C. V. Piper for determination." The collection date was 14 July 1912, and the locality was Lake Serene, Washington. H. B. Hinman collected the specimen.

Correll identified the specimen as *Habenaria chorisiana*, now *P. chorisiana*, and reported a new record for the United States. He noted that he contacted C. L. Hitchcock and "his observant secretary" (J. W. Thompson?) who located Lake Serene for him. They probably reviewed maps and decided that no one would be at the more remote Lake Serene by Mount Index in 1912.

However, Hinman had already climbed Mount Index in 1911 (Beckey 1987). "Mount Index lacked a documented history until October 29, 1911, when H. B. Hinman, Ernest Martin, Lee Pickett, and George E. Wright, ascending from Anderson Creek, found a flagpole on the summit." Dr. Harry B. Hinman was an active member of the Mountaineers; Mount Hinman in Snohomish County is named after him (Beckey 1987). Smith and Bailey (1910) described his keen eye for botanical oddities and his uncanny ability to reach inaccessible specimens:

"The botany bunch was reinforced this year by a goodly company of helpers. Chief among these was Dr. H. B. Hinman, of Everett, who made practically all of the valuable collections of the trip. He would find the choicest specimens in an apparently barren spot where most of the party would declare nothing grew. He would climb perpendicular cliffs, and, clinging

to a ledge in mid-air, gather the treasures hidden from others' eyes, and all so fast that the old guard couldn't get specimens in press as fast as he brought them in."

Although I found no notes regarding a 1912 outing to Lake Serene or Mount Index, I did locate letters regarding Mountaineer plant collections. Piper and Anonymous (1913) discussed plants sent by Winona Bailey, a member of the Mountaineers, to Charles V. Piper. In a letter to Bailey, dated December 26, 1912, Piper noted, "One of the unnumbered sheets is a *Habenaria* which may be a new species. At any rate it does not look familiar, and I am going to study it more carefully." From an anonymous individual detailing more locality information, "Of the number (of plant specimens) retained by Mr. Piper, *Artemisia longepedunculata* was collected at Lake Serene on Mt. Index and has been reported but once before; the *Habenaria* is also from Lake Serene; the *Veronica* from Lake Washington."

Therefore, the 1912 specimen was collected at the Lake Serene near Mount Index, not Edmonds, passing from Harry B. Hinman, to Winona Bailey, to Charles V. Piper, to Oakes Ames, and to Donovan Correll. This specimen currently exists at LL and is in reportedly good condition (Tom Wendt, University of Texas at Austin, personal communication).

Elroy Burnett found 6 stems of *P. chorisiana* at Lake Serene, near Mount Index, on 28 July 1988 (Washington Natural Heritage Program 2005). I re-visited this site on 28 August 2002 with Laura Potash (USDA Forest Service). We found 14 stems within our monitoring plot. Thus, *Platanthera chorisiana* has persisted at Lake Serene, near Mount Index, for at least 90 yrs.

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